

Applicants: Lincoln *et al.*  
Serial No.: 09/618,178  
Filed: July 18, 2000  
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- (b) forming a data set from the reaction values;
  - (c) establishing initial probability distributions for the genotype of interest at the locus;
  - (d) calculating the conditional probability of each genotype of interest at the locus by applying the first reaction value to each probability distribution in the set of probability distributions that corresponds to the first reaction value; and
  - (e) determining the genotype and confidence score.

70. (New) A method according to claim 69, further comprising:

measuring, under comparable biochemistry, a second reaction value corresponding to the presence of a second allele at the locus;  
forming a data set of reaction values corresponding to the second allele;  
applying the first and second reaction values to each pertinent probability distribution to determine a measure of the conditional probability of each genotype of interest at the locus, and determining the confidence score and genotype for each sample.

71. (New) A method according to claims 69 or 70, wherein the comparable conditions comprise all of the samples being prepared using the same reagent batch.

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**REMARKS**

The claims have been replaced by new claims as set forth above to describe a preferred embodiment of the invention.

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The new claims are directed to methods of determining both genotype and confidence scores at a genetic locus for a plurality of samples of genetic material obtained from a subject. The plurality of samples are prepared under comparable conditions.

These claims find support throughout the specification. For example, independent claim 48 finds support in the application for example at page 12, line 7 through page 15, line 7 inclusive. Reaction values are described in the specification, for example, at page 8, lines 9-22. Downward trends in the confidence score are discussed in the specification at, for example, page 19, lines 17-29.

Applicants respectfully submit that the new claims are not taught or suggested by any of the prior art cited in the office action of January 24, 2000 for the parent application. Moreover, Applicants respectfully submit that the new set of claims clearly and specifically describe the claimed subject matter of the invention and that such rejections have been obviated. Applicants respectfully invite the Examiner to examine this new set of claims.

Entry of the new claims, and reconsideration of the application and allowance are respectfully requested.

No fees are believed to be due at this time. If any fees are determined to be necessary, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 11-0171.

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If there are any questions or comments relating to the present application, the Examiner is respectfully invited to contact Applicants' attorney at the telephone number set forth below.

Respectfully submitted,



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